



Lessons Learned from Marijuana Legalization

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What is SAM?



- A 501(c)(3) non-profit, educational organization funded by volunteers & private organizations
- Our mission:
 - **Educate citizens** on the science of marijuana
 - Promote **health-first, smart policies and attitudes** that decrease marijuana use and its consequences

Groups SAM collaborates with

- **American Society of Addiction Medicine**
- **American Academy of Pediatrics**
- **American Academy of Child and Adolescent Psychiatry**
- **Other leading public health authorities**
- **Over 30 state affiliates, including:**
 - Treatment centers
 - Recovery groups
 - Prevention organizations
 - Law enforcement
 - Leading medical authorities
 - Volunteer citizens

Two Organizations, One Mission

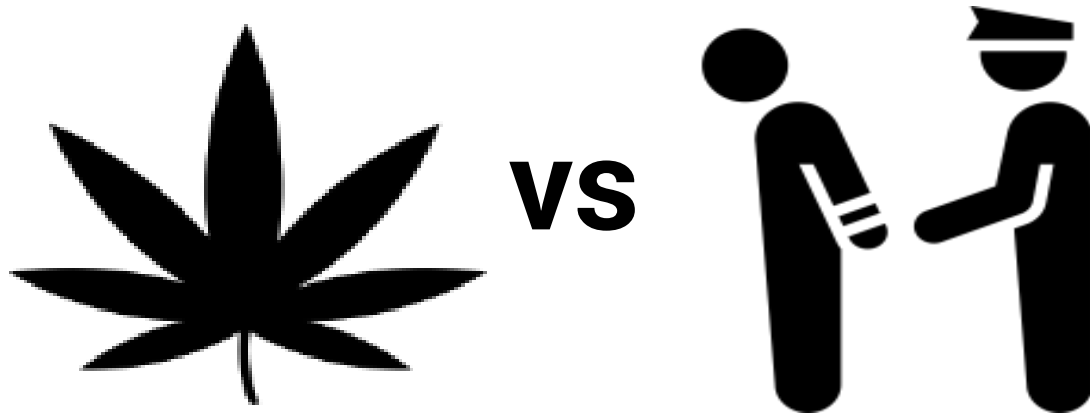


- SAM Action is dedicated to promoting healthy marijuana policies that do not legalize drugs.
- Active at all levels of national, state, and local policy-making
- Invests in and starts organizations to promote smart marijuana policies



- SAM's mission is to educate citizens on the science of marijuana and to promote health-first, smart policies and attitudes that decrease marijuana use and its consequences.
- Brings light to and conducts research into marijuana's negative effects

The false dichotomy: “Legalization OR incarceration?”



Three separate issues that often get conflated

1

**Penalizing drug
users/
"decriminalization"**



2

**Medicinal use
of compounds
derived from
marijuana/
other drugs**



3

**Legalization of
marijuana or
other drugs for
"non-medical"
use**



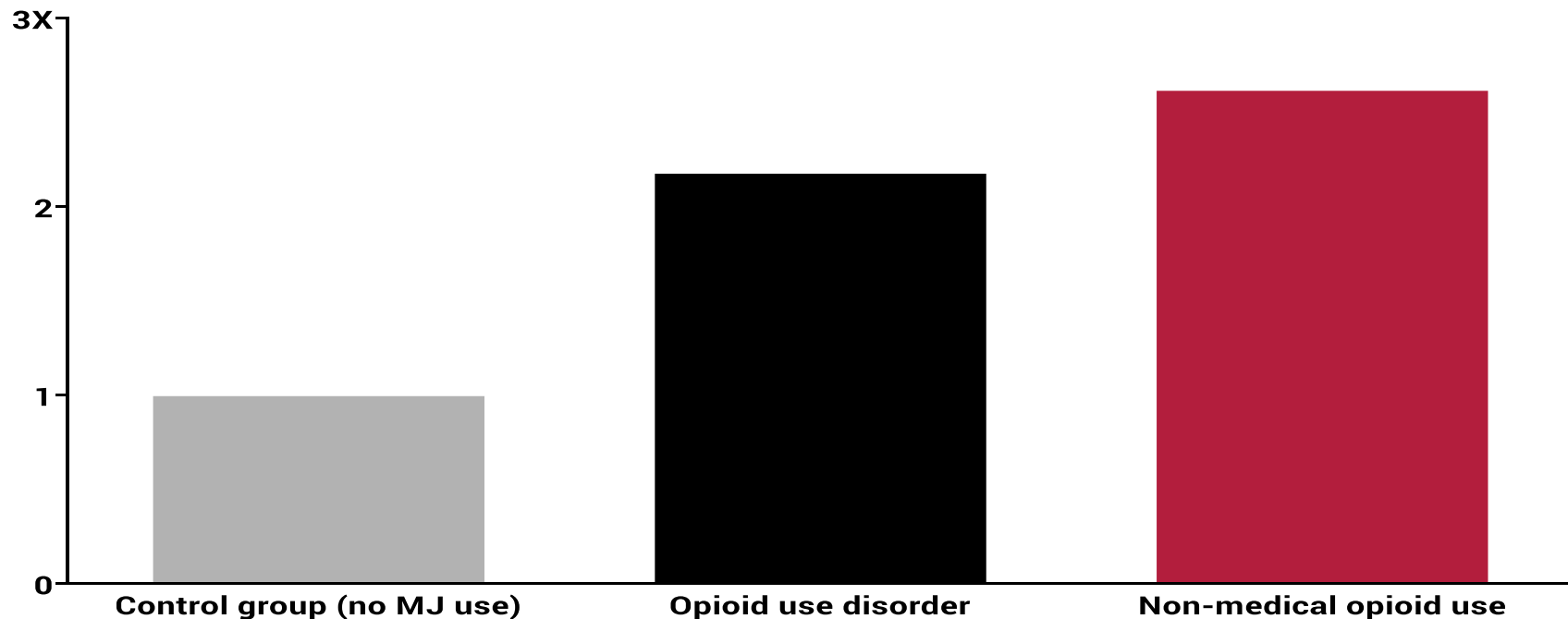
**Why talk
POT**



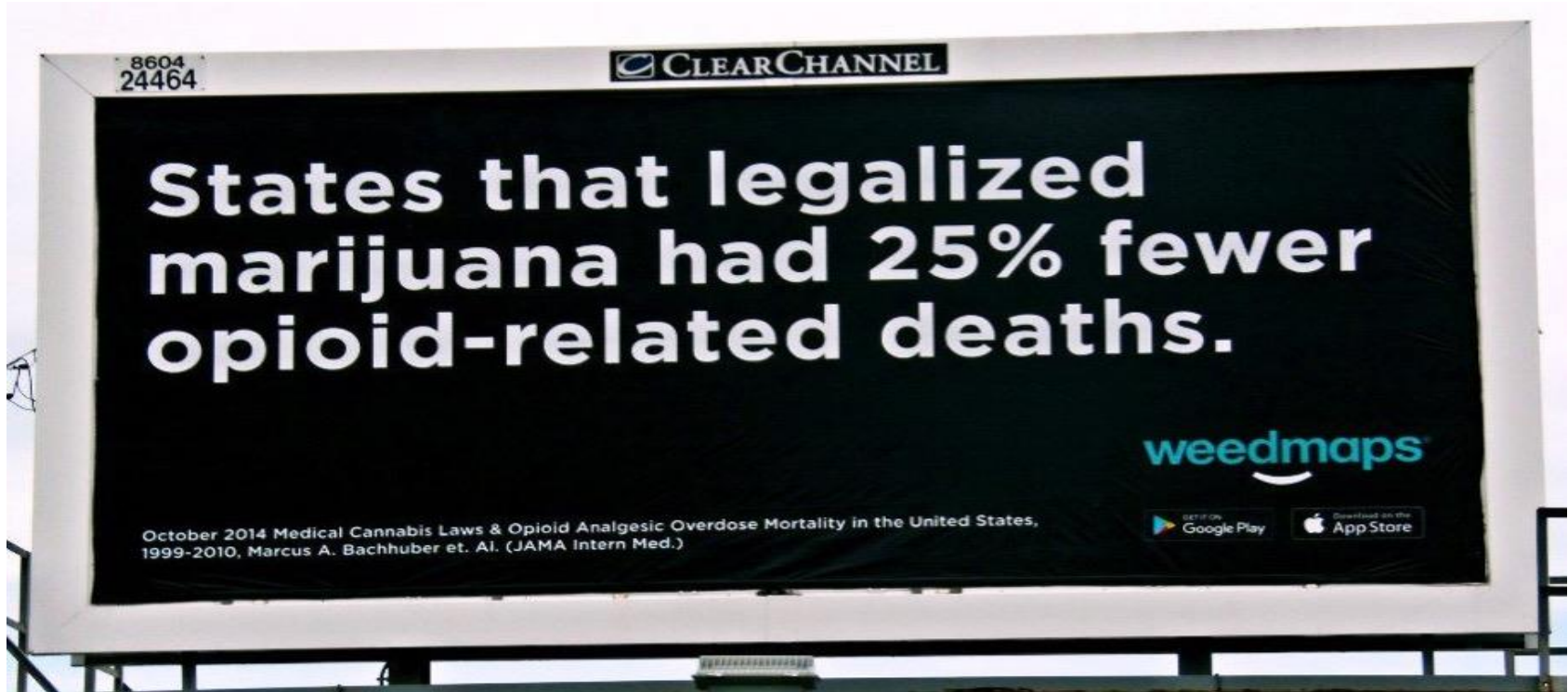
**During an
opiate
epidemic?**

Marijuana use goes hand-in-hand with increased prescription opioid abuse

Chance of subsequent opioid abuse for marijuana users compared to control group



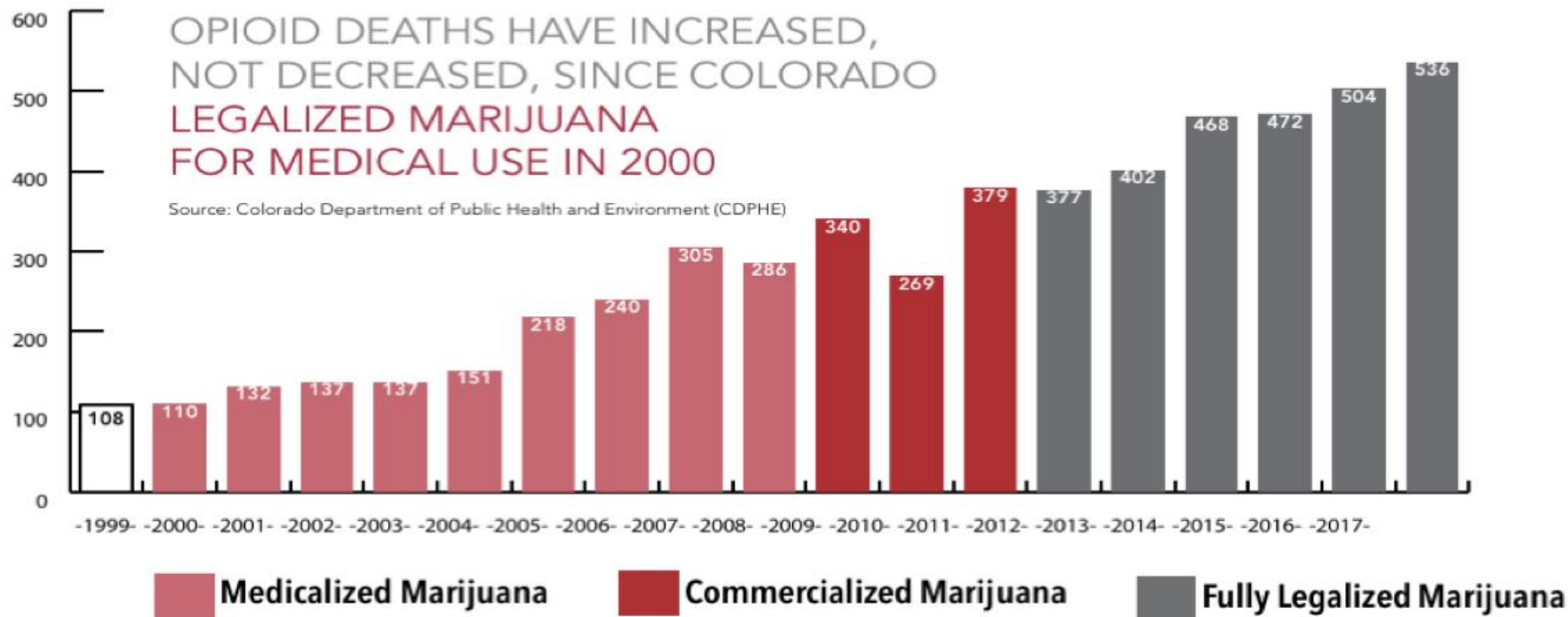
The Marijuana Industry Sees a Business Opportunity



Something doesn't add up...

In the 2014 JAMA Study:

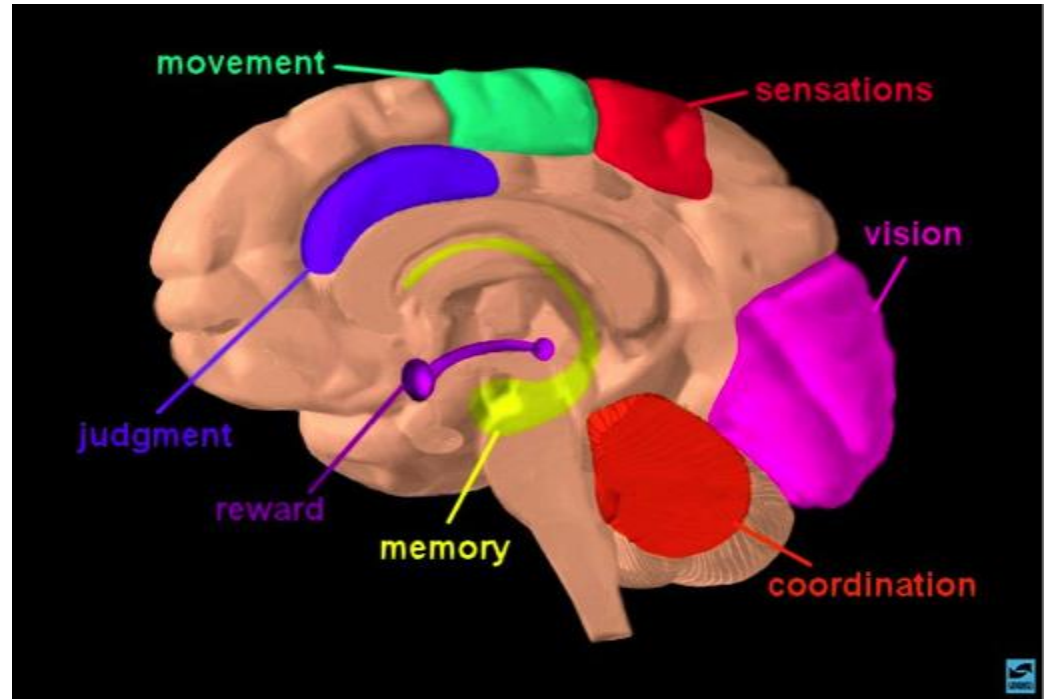
- The raw data showed that medical marijuana states had **higher** rates of opioid deaths until the authors introduced four possible reasons.
- The study lumped together highly restricted states with highly permissive states.
- The study left out critical alternative explanations, like **expanded Medication Assisted Treatment programs or expanded Naltrexone use.**



Marijuana's effects on public health

Cannabinoid Receptors Are Located Throughout the Brain and Regulate a Host of Brain Activity

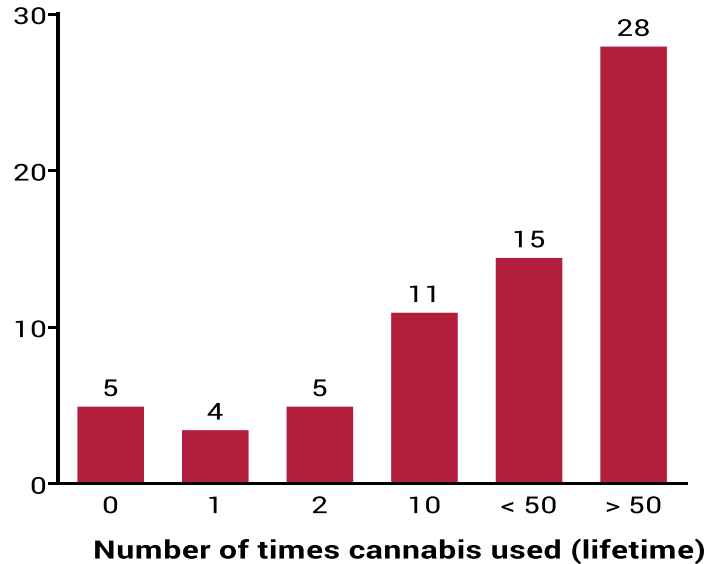
- Brain Development
- Memory & Cognition
- Motivational Systems & Reward
- Appetite
- Immunological Function
- Reproduction
- Movement Coordination
- Pain Regulation & Analgesia



Pot use is strongly correlated with psychosis

MORE MARIJUANA USE CORRELATES WITH HIGHER RATES OF SCHIZOPHRENIA

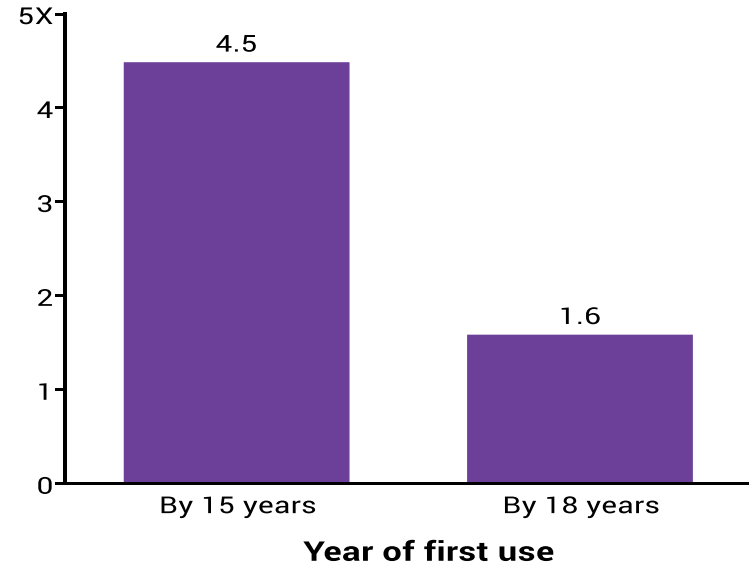
Cases of schizophrenia per 1,000 people



Study of Swedish Conscripts (n=45570)

EARLIER AGE OF USE CORRELATES WITH INCREASED SCHIZOPHRENIA RISK

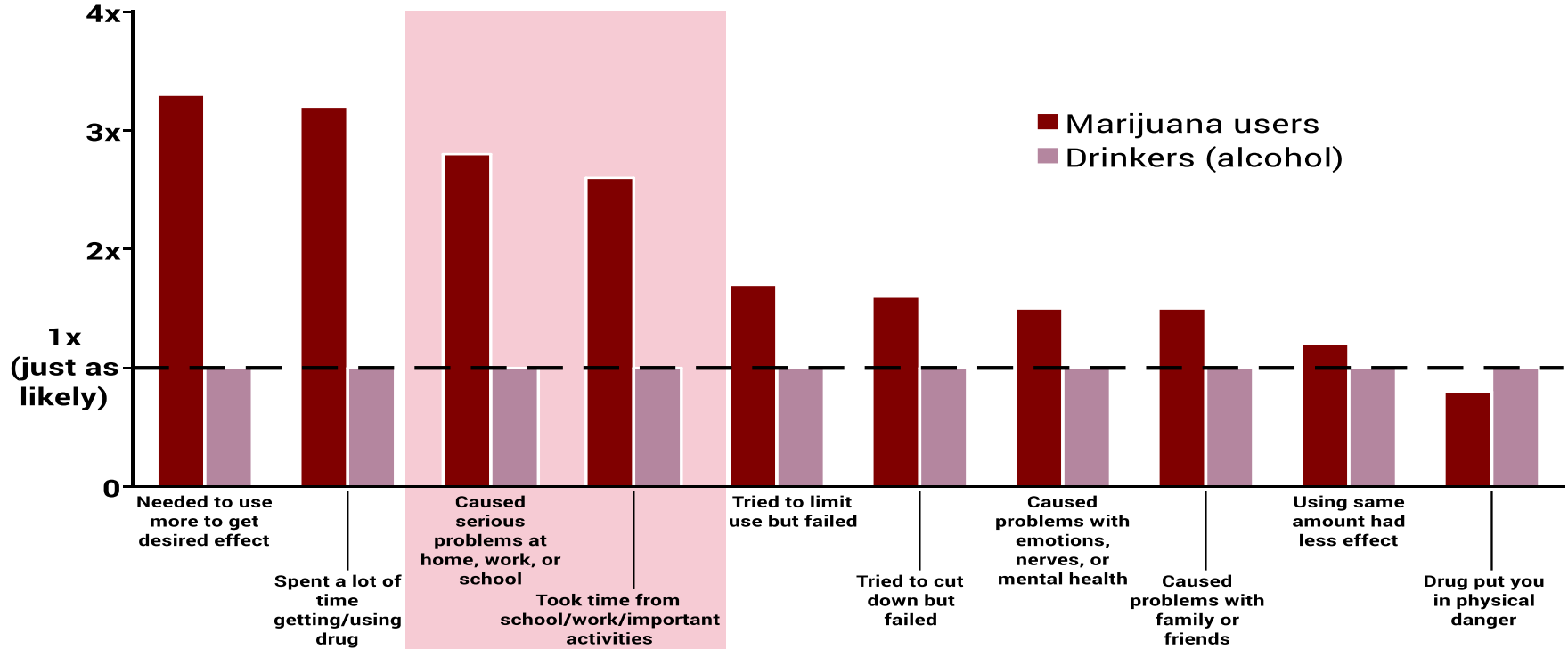
Risk multiple for schizophrenia-like psychosis at age 26



Longitudinal prospective Dunedin study (n=1037)

"Safer than alcohol?" Not exactly...

Relative frequency of problem



Today's marijuana

Not This...

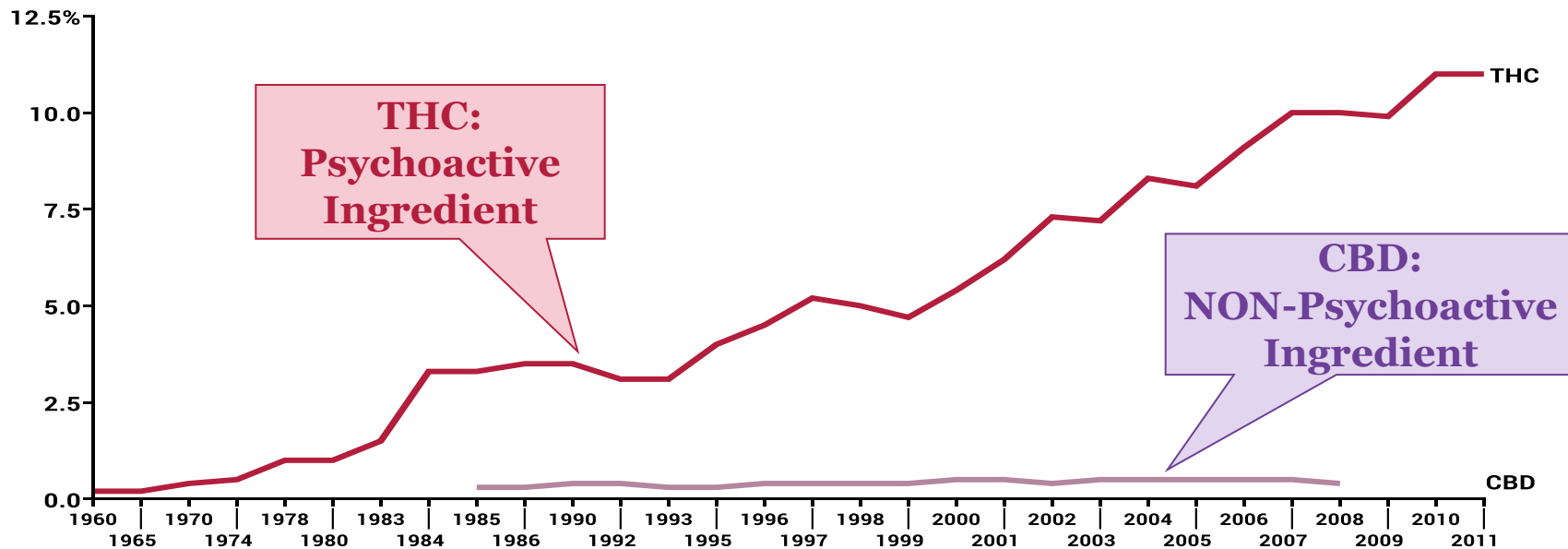


...But This



Marijuana has become significantly more potent since the 1960s

Average THC and CBD levels
in the United States



CBD									0.3	0.3	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.4		
THC	0.2	0.2	0.4	0.5	1.0	1.0	1.5	3.3	3.3	3.5	3.5	3.1	3.1	4.0	4.5	5.2	5.0	4.7	5.4	6.2	7.3	7.2	8.3	8.1	9.1	10.0	10.0	9.9	11.0	11.0

Marijuana is not “just a plant” anymore – derivatives contain up to 98% THC



*“Green Crack”
wax*



“Ear Wax”



Butane Hash Oil
(BHO)



Hash Oil Capsules



“Budder”


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“Shatter”




The Industry Today



- 

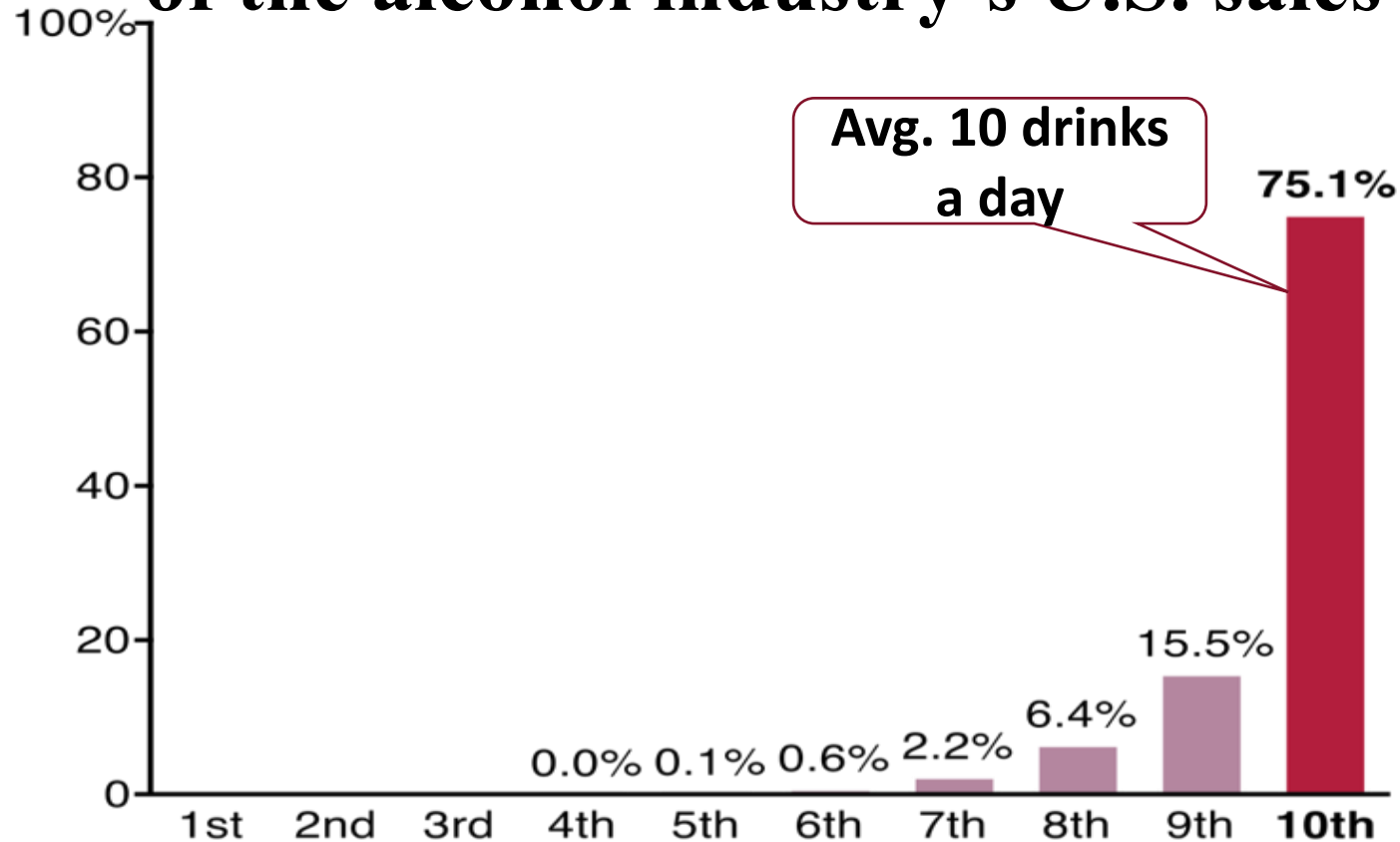
1 Kid-friendly: comes in shapes & colors attractive to children, like candy and soda
- 2** **95%**
Potent: often made w/ concentrates of up to **95% pure THC** (joints are ~ 15% THC)
- 3** \$\$\$
Aggressive marketing: free samples, billboard advertising, and other **Big Tobacco** tactics
- 

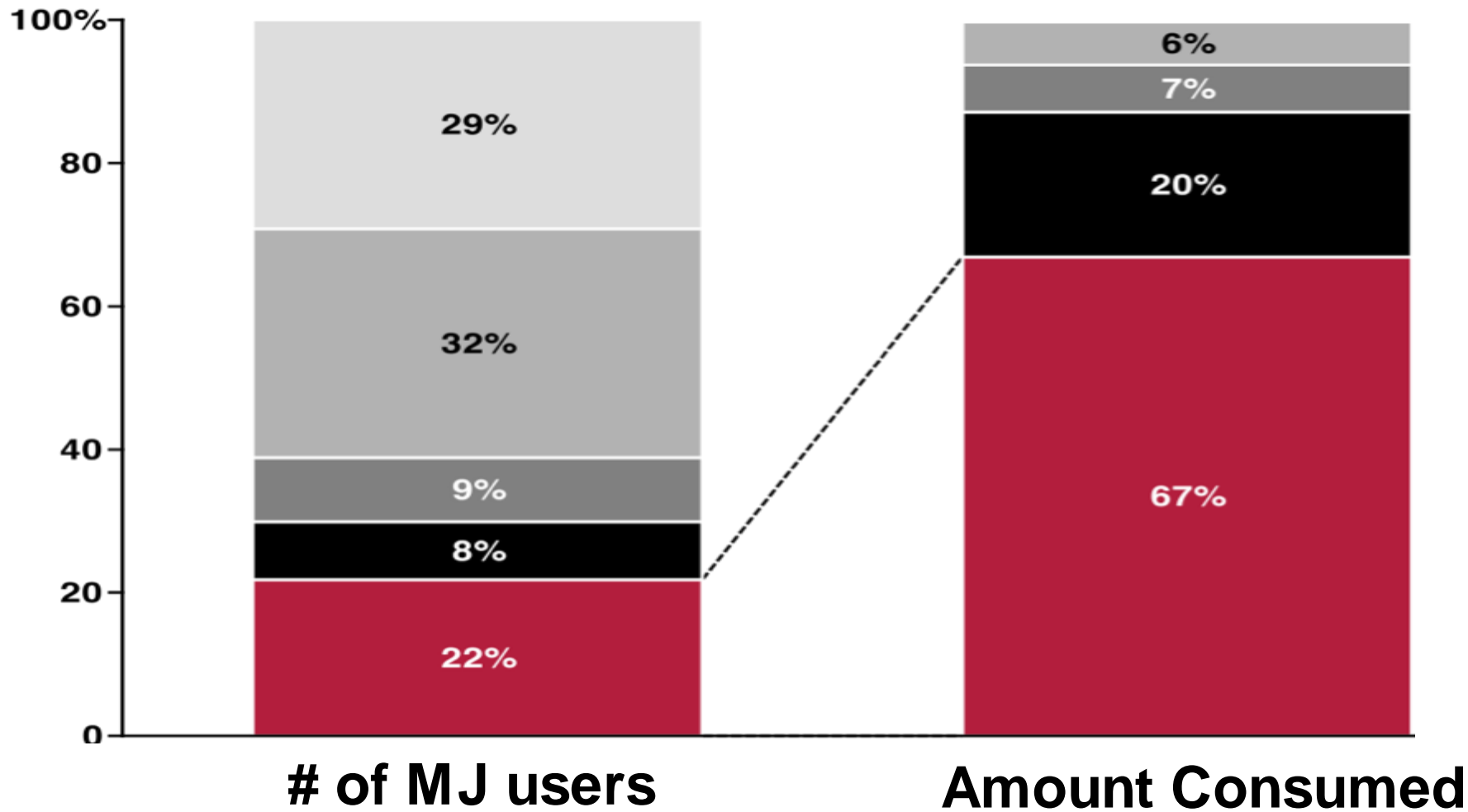
4 Contaminants: In 2015, CO recalled 100s of thousands of edibles containing **banned pesticides**
- 

5 Fighting regulation: The pot industry has lobbied hard against regulation (e.g., warning labels, dosing rules, and bans on ads targeting kids)



The top 10% of the population make up 75% of the alcohol industry's U.S. sales





Source: Colorado Department of Revenue: Market Size and Demand for Marijuana in Colorado

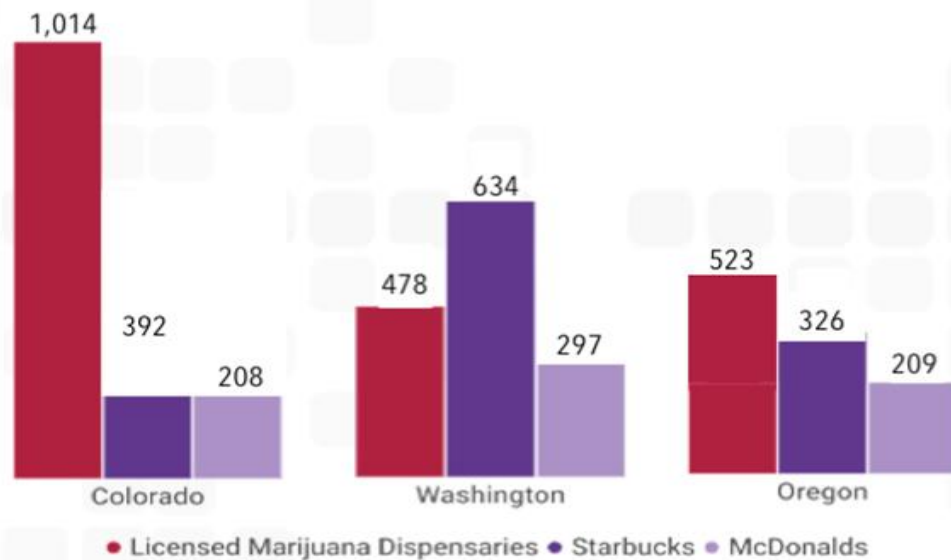
What have we learned?





BUSINESS COMPARISON 2017

SOURCE: Colorado Department of Revenue; Starbucks Coffee Company, Corporate Office Headquarters; McDonalds Corporation, Corporate Office Headquarters; Washington State Liquor & Cannabis Board. Licensing. February 26, 2018. Information obtained from https://lcb.wa.gov/sites/default/files/publications/Public_Records/2017/MarijuanaApplicants.xls; Oregon Liquor Control Commission http://www.oregon.gov/olcc/marijuana/Documents/Approved_Retail_Licenses.pdf



Results of Legalization

Commercialization

- CO now #1 first-time youth use rate in the country
- Rampant advertising/commercialization
- A thriving underground market – white, grey, and black.

Promotion of Special Interests

- THC caps have failed (State of CO)
- Limit on # and location of stores have failed (Denver)
- Money diverted to general fund (eg WA)

Marijuana-related emergency room visits have also surged since legalization. According to the Colorado Department of Public Health and Environment, the annual rate of marijuana-related emergency room visits increased 35% between the years 2011 and 2015 (CDPHE, 2016).

The burden on the emergency departments stemming from the type of patient care required and the resulting financial implications have been large for hospitals in Colorado (Finn, 2015).

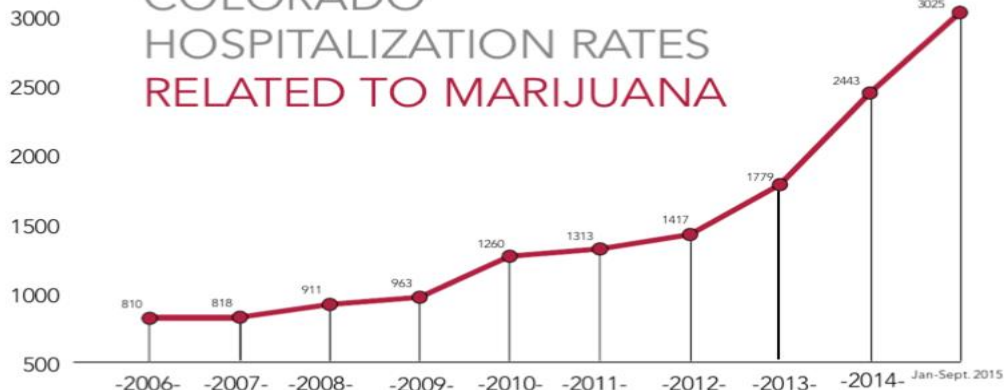
COLORADO POISON CENTER CALLS, 2000-2015



Annual regional poison center human exposure calls related to marijuana from January 1, 2000 through December 31, 2015, divided by age groups. *Counts significantly increased from previous year with a p value <0.003. Unknown age includes calls with ages recorded as teens, 20s, unknown adult (≥ 20 yrs), unknown child (≤ 19 yrs), and unknown age. Human marijuana exposure calls to RPC were determined by the presence of the generic code Marijuana - 0083000 from the National Poison Data System or marijuana exposure mentioned in RPC case notes.

3500

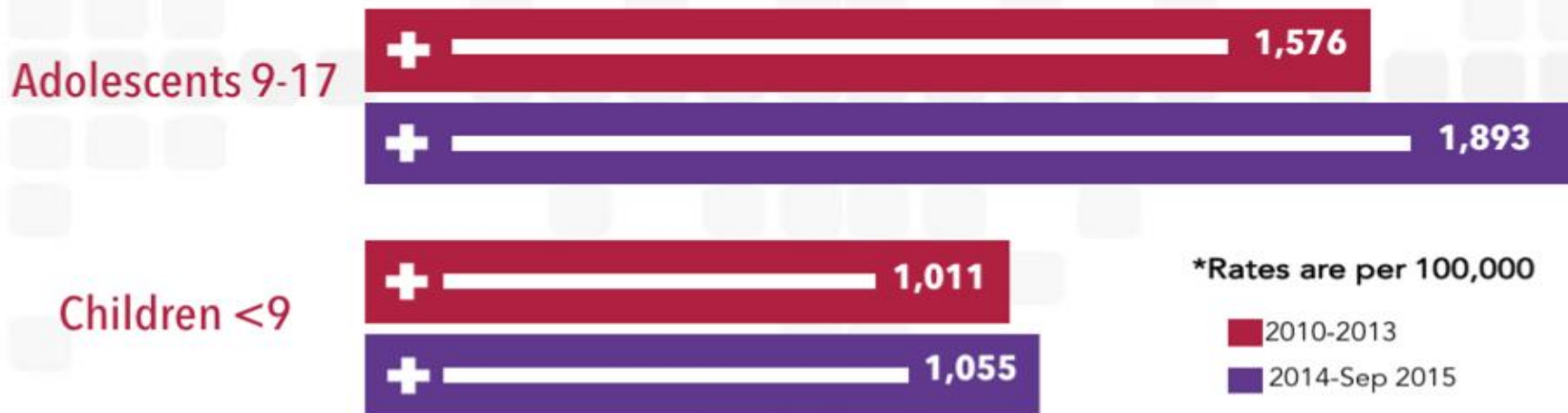
COLORADO HOSPITALIZATION RATES RELATED TO MARIJUANA



Source: Colorado Department of Public Health and Environment, Monitoring Health Concerns Related to Marijuana in Colorado: 2016

MARIJUANA EMERGENCY ROOM VISITS HAVE ALSO INCREASED AMONG CHILDREN AND ADOLESCENTS (CHA, 2016).

MARIJUANA RELATED EMERGENCY ROOM VISITS IN CO BY AGE

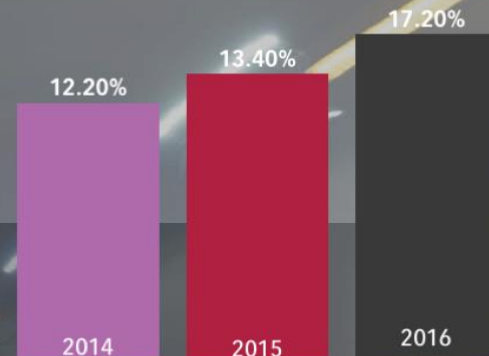


Source: Colorado Hospital Association 2011-Sep 2015 as reported in Monitoring Health Concerns Related to Marijuana in Colorado: 2016, Per 100,000

DRUGGED DRIVING

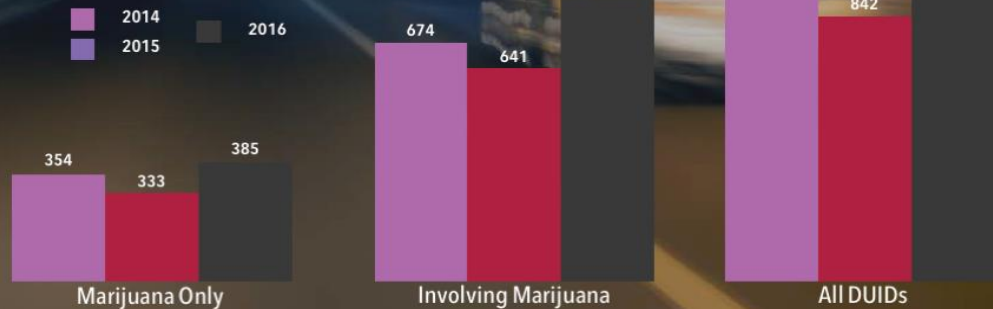
MARIJUANA AS A PERCENT OF ALL DUI AND DUIDS IN COLORADO

Source: Colorado State Patrol, CSP Citations for Drug Impairment by Drug Type, as reported by HIDTA



COLORADO STATE PATROL NUMBER OF DRIVERS UNDER THE INFLUENCE OF DRUGS (DUIDS)

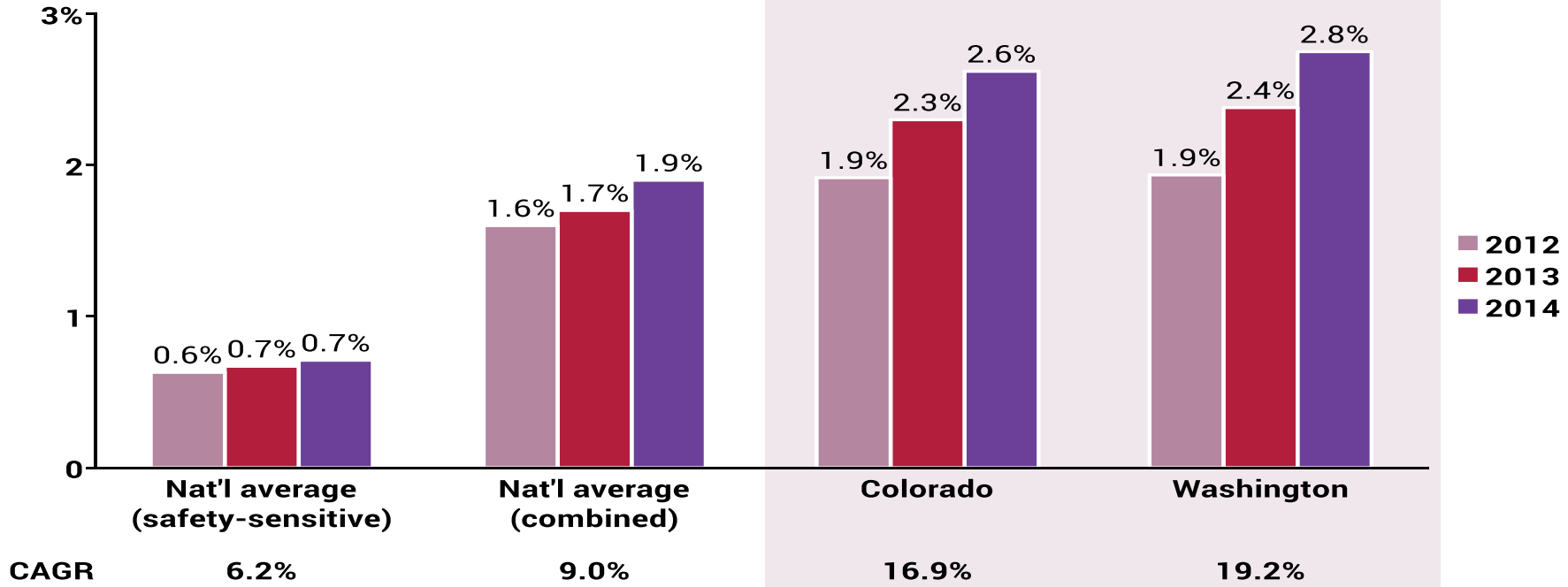
Source: Colorado State Patrol, CSP Citations for Drug Impairment by Drug Type, as reported by HIDTA



Workplace & Economy

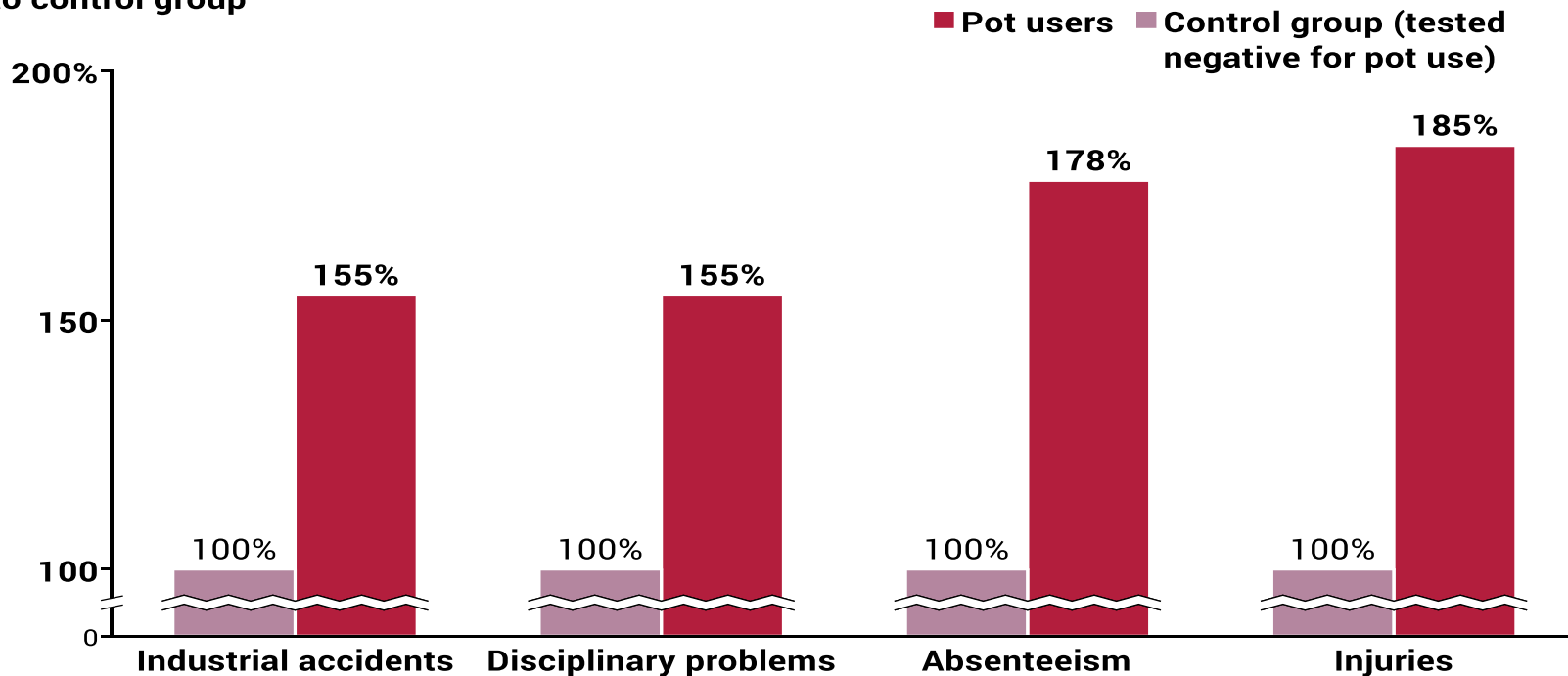
Workplace marijuana use is rising across the board, and especially in CO and WA

% increase in positivity rate
for workplace MJ urine tests



Accidents, injuries, absenteeism, and disciplinary problems among pot users all increase costs

Incidence of problem compared to control group



As the marketing organization for the city, VISIT DENVER measures, records and reports hundreds of data points. The attached presentation highlights the safety trends and feedback we receive and closely track from convention and leisure visitors over the span of several years. VISIT DENVER realizes that homelessness is not a crime, and that it is just one component of the many issues having an impact on Denver and surrounding cities. However, it is important to note that visitors often do not recognize or distinguish the differences between panhandlers, travelers, homeless, and others but rather provide overall feedback based on personal safety and sense of security when visiting Denver.

There are several key takeaways from the information provided:

- The downtown environment is the #1 complaint from meeting planners, far surpassing any other categories. The severity of this issue has increased and as of 2014 nearly 50% of meeting planners negatively commented on homeless, youth, panhandling, safety, cleanliness, and drugs including public marijuana consumption.
- Denver ranks very high on walkability, affordability, facilities, and other factors. However, Denver as a “safe city” ranks significantly lower according to interviews with key convention planners conducted by an independent third-party.
- Denver is losing visitors and valuable convention business as a result of these overall safety (or perception of safety) issues. Unfortunately, word is beginning to spread among meeting planners about the safety challenges Denver is facing. As the marketing organization for the city, we fear not being able to brand Denver away from this growing reputation.

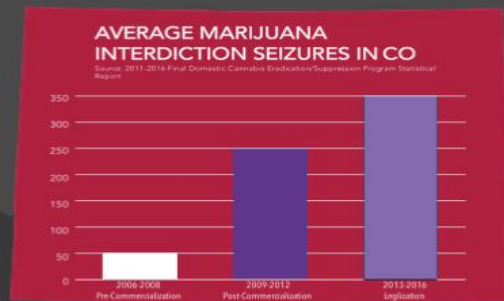
Drug use is forcing CO employers to hire out-of-state employees



“Jim Johnson [construction company GE Johnson’s CEO]...said his company has encountered **so many job candidates who have failed pre-employment drug tests** because of their THC use that **it is actively recruiting construction workers from other states.**”

Crime & Justice

BLACK MARKET ACTIVITY SINCE LEGALIZATION



MARIJUANA RELATED CRIME AND OFFENSES SINCE LEGALIZATION

One hundred three (103) law enforcement agencies reported 6727 qualifying incidents in 554 public schools during the 2015-16 academic year, from August 1, 2015 through July 31, 2016.

CRIMES AND OFFENSES IN PUBLIC SCHOOLS, 2015-2016

OFFENSE	N	%	CUMULATIVE %
Marijuana (#1)	1561	23%	23%
Assault	834	12%	36%
Disorderly Conduct/ Fighting	814	12%	48%
Public Peace	666	10%	58%
Dangerous Drugs	420	6%	64%
Larceny/Theft	341	5%	69%
Liquor/Alcohol	297	4%	73%
Tresspass	260	4%	77%
Obstruct	206	3%	80%
Harassing Communication	203	3%	83%
Other/Unclear	194	3%	86%
Weapon Offense	141	2%	88%
Tobacco	127	2%	90%
Damage Property	120	2%	92%
Traffic Offense	91	1%	93%
Sexual Assault/Offense	76	1%	94%
Warrant	57	1%	95%
Criminal Mischief	47	1%	96%
Runaway/ Missing Person	41	1%	97%
Interference with Educ Inst	39	<1%	97%
Truancy	36	<1%	98%
Burgary	33	<1%	98%
Menacing	26	<1%	99%
Arson	25	<1%	99%
Robbery	20	<1%	99%
Curfew	16	<1%	100%
Family/Child Offense	12	<1%	100%
Vehicle Theft	8	<1%	100%
Fraud/Forgery	5	<1%	100%
Kidnapping	5	<1%	100%
Invasion of Privacy	2	<1%	100%
Total	6727	100%	100%

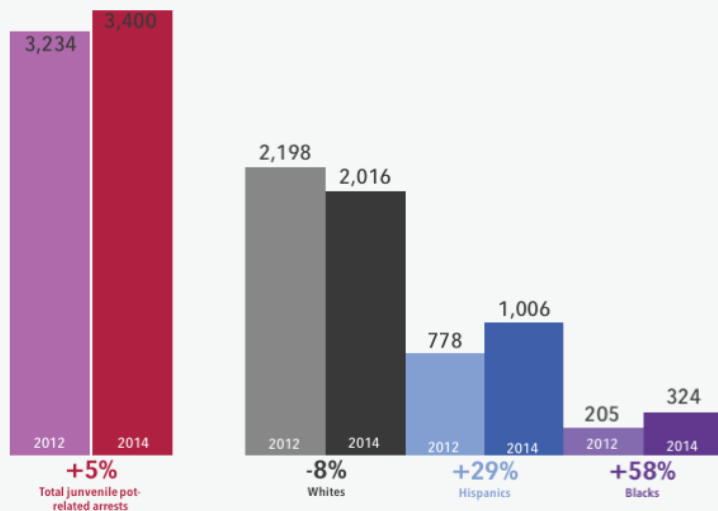
Source: Colorado Department of Public Safety, 2017

IMPACTS OF LEGALIZATION ON COMMUNITIES OF COLOR

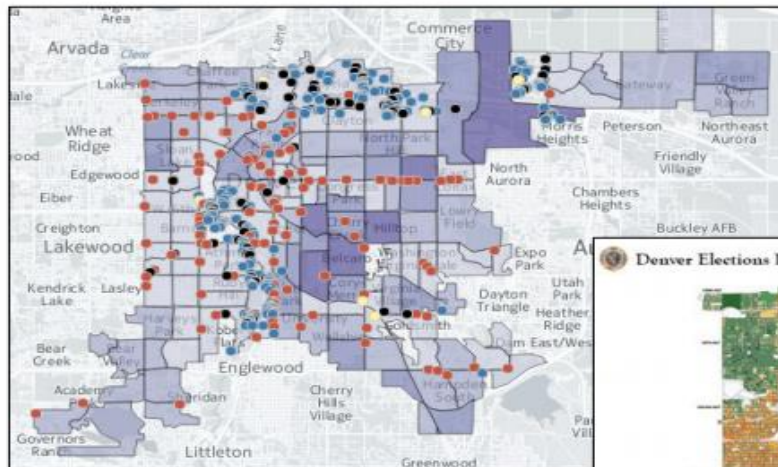
Furthermore, juvenile marijuana-related arrests have increased among African-American and Hispanic teens in Colorado after legalization. Between 2012 and 2014, the percentage of Hispanic and African-American arrests for teens under 18 years old increased 29% and 58%, respectively (CDPS, 2016). With the advent of legalization, communities of color are subject to disproportionate targeting by marijuana facilities. In Los Angeles, the majority of dispensaries have opened primarily in African-American communities (Thomas & Freisthler, 2017). An overlay of socioeconomic data with the geographic location of pot shops in Denver shows marijuana stores are located primarily in disadvantaged neighborhoods.

MARIJUANA-RELATED JUVENILE ARRESTS IN CO BY RACE/ETHNICITY, 2012-2014

Source: Colorado Department of Public Safety (March 2016)

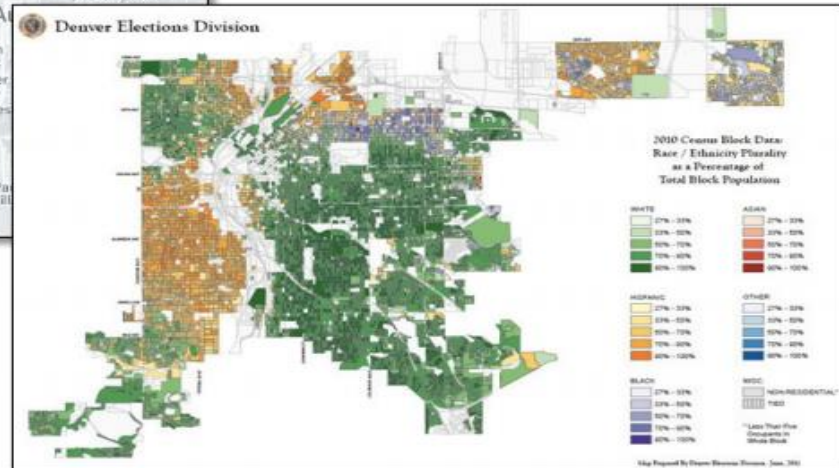


MARIJUANA BUSINESSES IN DENVER ARE CONCENTRATED IN NEIGHBORHOODS OF COLOR



Locations of pot businesses
(dots represent businesses;
neighborhoods shaded
by income; lighter =
lower-income)

Denver neighborhoods
colored by race/ethnicity:
green = White; orange =
Latino; purple = Black;
red = Asian; blue = Other



Tax Revenue?

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OPINION > **OPINION COLUMNISTS**

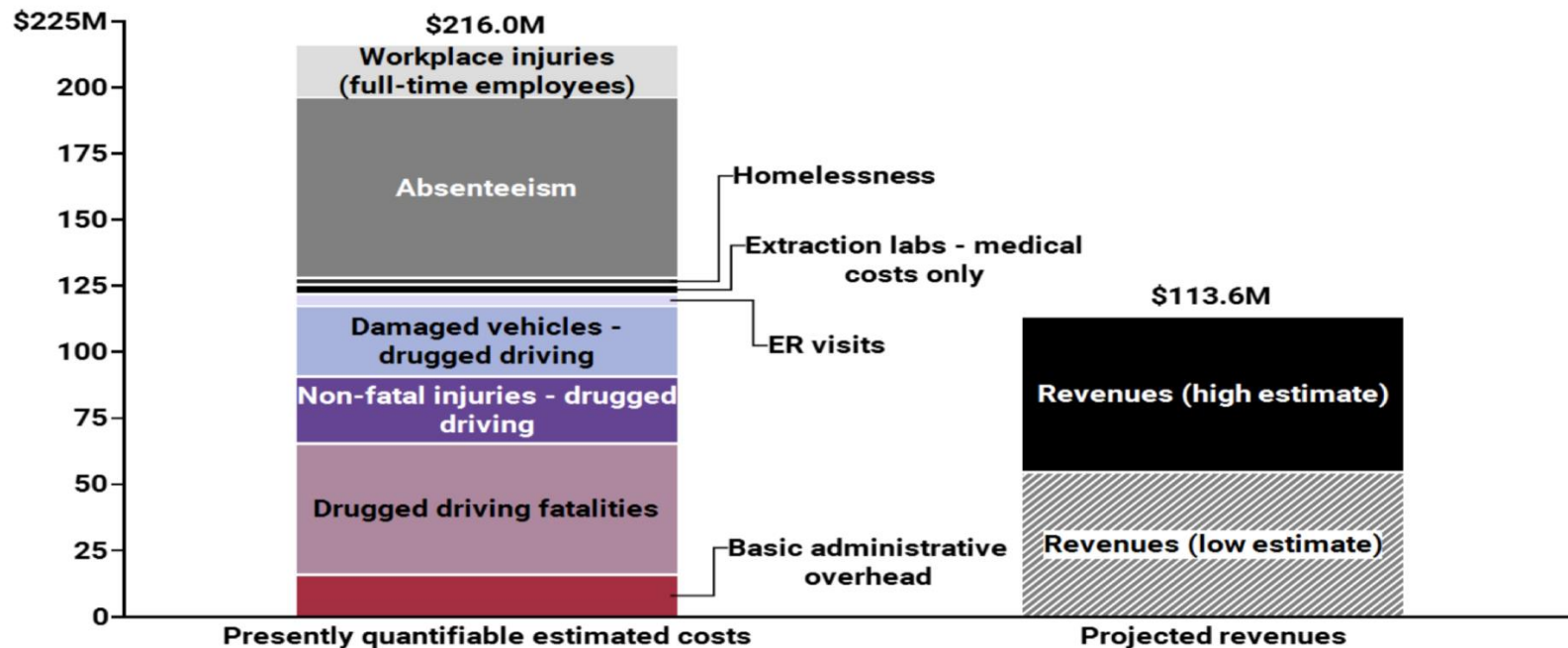
Why pot taxes can't solve Colorado's budget problems



By **CHRIS STIFFLER**

In CT, estimates of just a few costs outweigh projected revenues by over 90%

Estimated value for 2020
(in millions of 2016 dollars)



The Jury is Still Out...

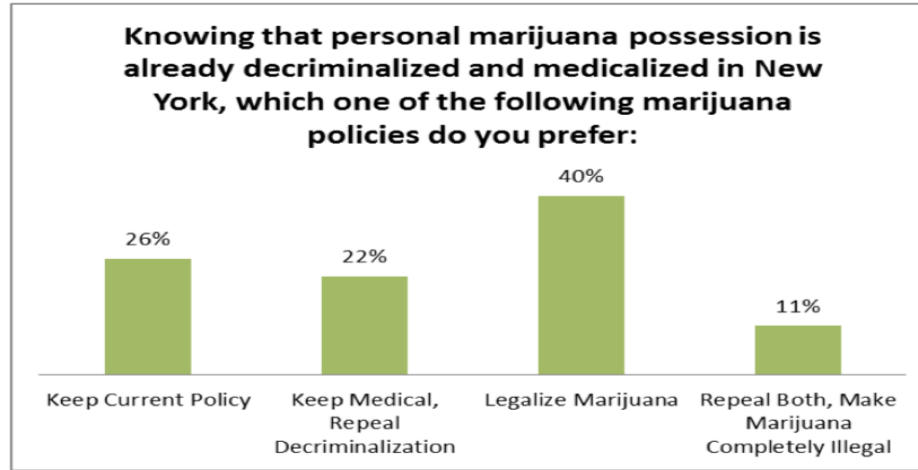
NEW FDU POLL SHOWS MAJORITY OF NEW JERSEYANS OPPOSE LEGALIZING RECREATIONAL MARIJUANA

"Anyone who expected legalization to happen quickly and easily might reconsider given these findings," [said Krista Jenkins to the Star-Ledger](#), professor of political science and director of the FDU Poll.



Half of Americans support alternatives to full marijuana legalization: poll

BY JOSH DELK - 01/17/18 04:20 PM EST



NEW ILLINOIS MASON-DIXON POLL SHOWS

LARGE MAJORITY OPPOSES LEGALIZING RECREATIONAL MARIJUANA

Poll finds only 23% support the legalization of recreational marijuana; 69% want other options such as maintaining current decriminalization law

My Reason for Being Here

LESSONS LEARNED FROM MARIJUANA LEGALIZATION IN FOUR U.S. STATES AND D.C.

MARCH 2018



Reviewed by researchers from:
University of Colorado at Denver
Harvard Medical School
Boston Children's Hospital
University of Connecticut
Yale University
University of Kansas
and more

SAM Smart
Approaches to
Marijuana
preventing another big tobacco
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